



Day 2, June 19, 2025

Time	Activity
09:00 - 09:45	Plenary Lecture 4
09:45 - 10:00	Short Break
10:00 - 10:45	Plenary Lecture 5
10:45 - 11:15	Coffee Break
11:15 - 12:45	Parallel Sessions: - Session B: 4 papers (60 min + 20 min for comments) - Session C: 4 papers (60 min + 20 min for comments) - Session D: 4 papers (60 min + 20 min for comments) - Session M1: 4 papers (60 min + 20 min for comments)
12:45 - 14:00	Lunch Break
13:15-14:00	Sponsor Presentation
14:00 - 14:45	Plenary Lecture 6
14:50 - 16:10	Parallel Sessions: - Session B: 4 papers (60 min + 20 min for comments) - Session C: 4 papers (60 min + 20 min for comments) - Session D: 4 papers (60 min + 20 min for comments) - Session M2: 3 papers (65 min + 15 min for comments)
16:10 - 16:20	Short Break
16:20 - 17:20	Parallel Sessions: - Session A: 3 papers (45 min + 15 min for comments) - Session D: 3 papers (45 min + 15 min for comments) - Session M4: 3 papers (45 min + 15 min for comments) - Session M3: 3 papers (45 min + 15 min for comments)
17:20 - 17:50	Coffee Break
17:50 - 19:00	SSM Annual and Election Assembly
17:50 - 19:00	Sightseeing tour of Nis Fortress
19:30 - 22:00	Gala Dinner



Day 2, June 19, 2025

Day 2, June 19 09:00 - 09:45	Plenary Lecture Room: 611 FME Dynamic Stability of Structures under Multi-Hazards – Prof. J. Deng, <i>Lakehead University, Thunder Bay, Ontario, Canada</i> (10ICSSM- Deng)
09:45 - 10:00	Short technical break
Day 2, June 19 10:00 - 10:45	Plenary Lecture Room: 611 FME Strain-gradient crystal plasticity models for predicting microstructure, length-scale, and strain path sensitive deformation behavior of polycrystalline metals – M. Knezevic, <i>University of New Hampshire, USA</i> , (10ICSSM- Knezevic)
10:45 - 11:15	Coffee Break
11:15 - 12:45	Parallel Sessions
Day 2, June 19 11:15 - 12:45	Session B, Room: Chairs: Madjarevic D , <i>Faculty of Technical Science, University of Novi Sad, Serbia</i>

4 papers (15 min + 3 min for comments every):

- B.4 - **Numerical solutions of compressible gas flow in microtube in the continuum regime** – Guranov I, Milicev S., Stevanovic N. (10ICSSM - Guranov et al. - B)
- B.5 - **Magnetohydrodynamic (MHD) flow and heat transfer of electrically conducting micropolar fluid in a parallel plate channel with induced magnetic field** – Kocić M., Stamenkovic Z., Bogdanovic Jovanovic J., Petrovic J., Nikodijevic Djordjevic M. (10ICSSM - Kocić et al. - B)
- B.6 - **A macroscopic multi-temperature model with transport properties in comparison with kinetic models in the context of binary mixtures** – Madjarevic D. (10ICSSM - Madjarevic - B)
- B.7 - **On the modelling of korteweg fluids** – Matic Z., Simic S. (10ICSSM - Matic and Simic - B)

Day 2, June 19 11:15 - 12:45	Session C, Room: Chairs: Dunic V , <i>Faculty of Engineering, University of Kragujevac, Serbia</i>
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4 papers (15 min + 5 min for comments every):

- C.1 - **Phase-field modeling of concrete: numerical simulation and experimental verification** – Dunic V., Zivkovic M., Rakic D., Milovanovic V. (10ICSSM - Dunic et al. - C)



- **C.2 - Prediction of free-edge stresses in composite laminates using full-layerwise-theory-based finite elements** – *Jocic E., Zivkovic M., Marjanovic M.* (10ICSSM - Jocic et al. - C)
- **C.3 - An estimate of penetration depth of rigid rods through materials susceptible to microcracking: Part 1 – theory** – *Mastilovic S.* (10ICSSM - Mastilovic - C-1)
- **C.4. - An estimate of penetration depth of rigid rods through materials susceptible to microcracking: Part 2 – validation and parameter sensitivity** – *Mastilovic S.* (10ICSSM - Mastilovic - C-2)

Day 2, June 19 11:15 - 12:45	Session D, Room: Chairs: <i>Lazarevic M.</i> , Faculty of Mechanical Engineering, University of Belgrade, Serbia and <i>Pavlovic I.</i> , Faculty of Mechanical Engineering, University of Niš, Serbia
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4 papers (15 min + 5 min for comments every):

- **D.4. - Trapezoidal control for prevention of unwanted vibrations of mechanical systems** – *Formalskii A., Selyutskiy Y.* (10ICSSM - Formalskii and Selyutskiy - D)
- **D.5. - Motion analysis of a vibratory conveyor's trough during its operation** – *Ilic U., Lazarevic M., Veg E., Despotovic Z.* (10ICSSM - Ilic - D)
- **D.6. - PSO-based resonant controller for trajectory tracking of robot manipulator** – *Mandic P., Lazarevic M., Sekara T.* (10ICSSM - Mandic et al-D)
- **D.12 - Motion control of a copter with a slung load partially filled with liquid** – *Selyutskiy Y., Lokshin B., Holub A.* (10ICSSM - Selyutskiy et al. - D)

Day 2, June 19 11:15 - 13:05	Session M1, Room: Chairs: <i>Paunović S.</i> , MISASA, Belgrade, Serbia and <i>Liang Y.</i> , College of Mechanics and Engineering Science, Hohai University, Nanjing, China
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5 papers (15 min + 5 min for comments every):

- **M.1.1 - An overview of coupled mechanical problems including contact phenomena solved by FEA** – *Atanasovska I.* (10ICSSM - Atanasovska - M1)
- **M.1.3 - Machine-learning-based optimization design of combined seismic metamaterials** – *Fu Z., Ding Y., Chen H.* (10ICSSM - Fu et al.- M1)
- **M.1.8 - Upscaling anomalous transport in fractured media using fractional advection-dispersion equation model** – *Sun H.G.* (10ICSSM - Sun - M1)
- **M.1.5 - Simulation of thermal field in mass concrete structures with cooling pipes by the localized meshless method** – *Lin J., Hong Y.X.* (10ICSSM - Lin and Hong- M1)
- **M.1.9- Data-driven diffusion law for multiscale dynamics in granular materials via an improved deep physical symbolic regression**– *Yan S., Liang Y.* (10ICSSM - Yan and Liang - M1)



4 papers (15 min + 5 min for comments every):

Day 2, June 19 12:45 - 14:00	Buffet lunch (At the lobby area of sixth floor FME)
13:15-14:00	Sponsor Presentation (At the lobby area of sixth floor FME) Prager Elektronik, Wolkersdorf, Austria https://www.prager-elektronik.at/en/
Day 2, June 19 14:00 - 14:45	Plenary Lecture Room: 611 FME Global Nonlinear Dynamics in the Analysis and Safety of Multistable Dynamical Systems – P. B. Gonçalves, <i>Pontifical Catholic University of Rio de Janeiro, Brasil (10ICSSM- Gonçálve)</i>
14:50 - 16:10	Parallel Sessions
Day 2, June 19 14:50 - 16:10	Session B, Room: Chairs: <i>Petrovic J, Faculty of Mechanical Engineering, University of Niš, Serbia and Kocic M, Faculty of Mechanical Engineering, University of Niš, Serbia</i>

- B.10 - **Particle dynamics in inertial microfluidics: review of forces and channel design principles** – *Oluski N., Zivkov A., Kozomora V., Bukurov M., Tasin S. (10ICSSM - Oluski et al. - B)*
- B.11 - **EMHD convection of a trihybrid nanofluid through a porous medium in a vertical channel with thermal radiation** – *Petrovic J., Nikodijevic Djordjevic M., Kocic M., Bogdanovic Jovanovic J., Stamenkovic Z. (10ICSSM - Petrovic et al-B)*
- B.12 - **Stability analysis of the generalized washburn equation**– *Rapajic I., Simic S. (10ICSSM - Rapajic and Simic - B)*
- B.14 - **Numerical simulation of isothermal rarefied gas flow between two plates** – *Vulicevic P., Milicev S., Stevanovic N. (10ICSSM - Vulicevic et al. - B)*

Day 2, June 19 14:50 - 16:10	Session C, Room: Chairs: <i>Tomovic A, Faculty of Mechanical Engineering, University of Belgrade, Serbia and Pavlovic I, Faculty of Mechanical Engineering, University of Niš, Serbia</i>
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4 papers (15 min + 5 min for comments every):

- C.6 - **Energy based fatigue damage model** – *Perovic Z., Coric S., Koprivica M. (10ICSSM - Perovic et al. - C)*
- C.7 - **Vibration characteristics of 3D printed stepped cantilever beam** – *Pjevic M., Tomovic A., Veg M., Zoric N., Popovic M. (10ICSSM - Pjevic et al. - C)*
- C.8 - **Vibration characteristics of an optimized cantilever beam** – *Tomovic A., Pjevic M., Veg M., Obradovic A., Mitrovic Z (10ICSSM - Tomovic et al. - C)*
- C.9 - **Predictive reanalysis in structural dynamics** – *Trisovic N., Mankovits T., Petrovic A. (10ICSSM - Trisovic et al. - C)*

Day 2, June 19 14:50 - 16:10	Session D, Room: Chairs: <i>Simic V, Institute for Information Technologies, University of Kragujevac, Serbia</i>
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4 papers (15 min + 5 min for comments every):



- D.11 - **Truss structure optimization using particle swarm optimization with direct FEM coupling** – *Ristic O., Trisovic N.* (10ICSSM - Ristic and Trisovic - D)
- D.8 - **Data-driven nonlinear modelling of recycled aggregate concrete-filled steel tube columns** – *Nikolic J., Tosic N., Kostic S.* (10ICSSM - Nikolic et al. - D)
- D.9 - **Design and experimental verification of the composite blade of the main rotor of an unmanned helicopter** – *Radulovic R., Milic M.* (10ICSSM - Radulovic and Milic - D)
- D.17 - **ILC-MPC controller for robotic manipulators based on the ultra-local model**– *Zivkovic N., Lazarevic M., Vidakovic J., Mandic P.* (10ICSSM - Zivkovic et al. - D)

Day 2, June 19 14:50 - 16:10	Session M2, Room: Chairs: <i>Svorcan J.</i> , Faculty of Mechanical Engineering, University of Belgrade, Belgrade, Serbia and <i>Semlitsch B.</i> , Institute of Energy Systems and Thermodynamics, TU Wien, Vienna, Austria
Day 2, June 19 14:50 - 15:30	Invited lecture M.2.4 - Approaching a modified swarm intelligence in hydraulic optimization of an inline pump , <i>Xingcheng Gan</i> , Coauthors: <i>Prof. Ji Pei</i> , <i>Assoc. Prof. Wenji Wang</i> , <i>Prof. Jia Chen</i> and <i>Prof. Shouqi Yuan</i> , National Research Center of Pumps, Jinagsu University, China (10ICSSM - Gan - M2)

2 papers (15 min + 5 min for comments every):

- M.2.6 - **LES for modelling wind flow in urban block: accuracy, challenges and applications** – *Kostadinovic Vranesevic K., Jockovic M., Glumac A.* (10ICSSM - Kostadinovic Vranesevic et al. - M2)
- M.2.11 - **Transient simulation on internal flow characteristics and pressure pulsation of variable speed Francis turbines during acceleration process**– *Wang W., Liu S., Pei J.* (10ICSSM - Wang et al. - M2)

16:10 - 16:20	Short technical break
16:20 - 17:20	Parallel Sessions
Day 2, June 19 16:20- 17:20	Session A, Room: Chairs: <i>Spasic D.</i> , Faculty of Technical Science, University of Novi Sad, Serbia

3 papers (15 min + 5 min for comments every):

- A.5 - **New rheological discrete dynamic systems of the fractional type rheological oscillator or creeper type: An overview of author's new research results** – *Stevanovic Hedrih K.* (10ICSSM - Hedrih (Stevanovic) - A)
- A.4 - **Magnetic flows on spheres** – *Dragovic V., Gajic B., Jovanovic B.* (10ICSSM - Dragovic et al. - A)
- A.6 - **A simple engineers-friendly method for non-holonomic systems** – *Spasic D.* (10ICSSM - Spasic - A)

Day 2, June 19 16:20 - 17:20	Session D, Room: Chairs: <i>Trisovic N.</i> , Faculty of Mechanical Engineering, University of Belgrade, Serbia
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3 papers (15 min + 5 min for comments every):

- D.7. - **Computational modeling of drug transport from drug coated ballons (DCB)** – *Milosevic M., Milicevic B., Simic V., Nikolic A., Filipovic N., Kojic M.* (10ICSSM - Milosevic et al. - D)



- D.13 - **Computational modeling and parametric study of circulating tumor cells motion through capillaries and interaction with non/ thrombin activated platelets** – *Simic V., Milosevic M., Nikolic A., Ning S., Leonard F., Liu X., Kojic M.* (10ICSSM - Simic et al. - D)
- D.14 - **Kinematics modeling of compliant and extensible stewart-like platform** – *Tanaskovic N., Lazarevic M., Krkljes D.* (10ICSSM - Tanaskovic et al. - D)

Day 2, June 19 16:20 - 17:20	Session M4, Room: Chairs: <i>Nesic N., University of Pristina in Kosovska Mitrovica, Faculty of Technical Sciences, Serbia</i>
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3 papers (15 min + 5 min for comments every):

- M.4.3 - **A novel finite time stability analysis of a class nonlinear fractional order multi-state time delay systems: a new gronwall - bellman inequality approach** – *Lazarevic M., Pisl S., Radojevic D.* (10ICSSM – Lazarevic et al. - M4)
- M.4.8 - **The influence of the radius of curvature on the forced oscillations of an elastically coupled system of two doubly curved shallow nano-shells** – *Stamenkovic Atanasov M., Simonovic J., Pavlovic I.* (10ICSSM - Stamenkovic Atanasov et al. - M4)
- M.4.9 - **Convergence of analytical-numerical algorithm for inverse kinematics of Niryo One robot** – *Todorovic V., Nesic N., Jovic S.* (10ICSSM - Todorovic et al. - M4)

Day 2, June 19 16:20 - 17:20	Session M3, Room: Chairs: <i>Dosaev M., Institute of Mechanics of Lomonosov Moscow State University, Russia</i>
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3 papers (15 min + 5 min for comments every):

- M.3.7 - **A tailed robot on three supports** – *Klimina L.* (10ICSSM - Klimina - M3)
- M.3.8 - **A numerical study of the Belousov-Zhabotinsky reaction network** – *Macesic S., Ivanovic Sasic A., Cupic Z.* (10ICSSM - Macesic et al. - M3)
- M.3.9 - **Biomechatronic system for monitoring eating behaviour** – *Magomedov M., Magomedov R.* (10ICSSM - Magomedov and Magomedov - M3)

17:20 - 17:50	Coffee Break (At the lobby area of sixth floor FME)
Day 2, June 19 17:50 - 19:00	SSM Annual and Election Assembly Room: 611 FME
Day 2, June 19 17:50 - 19:00	Sightseeing tour Walk and Guided Tour of Niš Fortress
Day 2, June 19 19:30 - 22:00	Gala Dinner (The banquet hall at New City Hotel & Restaurant in Niš)